

**CLAIMS:**

1. A method comprising:  
locking candidate configuration data, wherein the candidate configuration data represents a working copy of operational configuration data;  
loading archived configuration data to replace the locked candidate configuration data; and  
committing the candidate configuration data to restore the archived configuration data as the operational configuration data.
2. The method of claim 1, wherein locking candidate configuration data occurs in response to receiving a lock command.
3. The method of claim 2, further comprising maintaining a session with a client to receive the lock command.
4. The method of claim 3, wherein the lock command comprises a failsafe attribute; and wherein locking the candidate configuration data in response to receiving the lock command comprises initiating an action in response to failure of the session when the failsafe attribute is enabled.
5. The method of claim 4, wherein initiating an action comprises executing a first rollback command to undo changes made in replacing the locked candidate configuration data with the archived configuration data prior to committing the candidate configuration data.
6. The method of claim 1, wherein loading archived configuration data occurs in response to receiving a load command.

7. The method of claim 6,  
wherein the load command comprises an override attribute; and  
wherein loading the archived configuration data in response to receiving the load command includes discarding the candidate configuration and replacing the discarded candidate configuration data with the archived configuration data in response to the override attribute of the load command.
8. The method of claim 1, wherein committing the candidate configuration data includes confirming the candidate configuration data prior to permanently committing the candidate configuration data.
9. The method of claim 8, wherein confirming the candidate configuration data occurs in response to receiving a confirm commit command.
10. The method of claim 8, wherein confirming the candidate configuration data comprises:  
temporarily committing the candidate configuration data to temporarily restore the archived configuration data as the operational configuration data;  
subsequently enabling a timer to determine a period; and  
permanently committing the candidate configuration data to restore the archived configuration data as the operational configuration data in response to an occurrence of an event prior to the timer exceeding a pre-set time limit.
11. The method of claim 10, wherein the event comprises receiving a commit command.
12. The method of claim 1, further comprising unlocking the candidate configuration data.
13. The method of claim 12, wherein unlocking the candidate configuration data occurs in response to receiving an unlock command.

14. The method of claim 13, wherein locking candidate configuration data permits only a single client to edit the candidate configuration data and unlocking the candidate configuration data allows one or more clients to simultaneously edit the candidate configuration data.
15. The method of claim 1, wherein committing the candidate configuration comprises:
  - generating a configuration patch that lists any differences between the candidate configuration data and the operational configuration data; and
  - applying the configuration patch to the operational configuration data to update the operational configuration data in accordance with the differences.
16. The method of claim 15, wherein generating a configuration patch comprises:
  - creating a temporary copy of the candidate configuration data;
  - merging the operational configuration data into the temporary copy to generate a list of updated configuration objects; and
  - generating the configuration patch to list the updated configuration objects.
17. A device comprising:
  - memory to store operational configuration data and candidate configuration data, wherein the candidate configuration data represents a working copy of the operational configuration data; and
  - a control unit to lock the candidate configuration data, load archived configuration data to replace the locked candidate configuration data, and commit the candidate configuration data to restore the archived configuration data as the operational configuration data.
18. The device of claim 17, wherein the control unit locks the candidate configuration in response to receiving a lock command.
19. The device of claim 18, wherein the control unit further maintains a session with a client to receive the lock command.

20. The device of claim 19,  
wherein the lock command comprises a failsafe attribute; and  
wherein the control unit initiates an action in response to failure of the session after receiving the lock command when the failsafe attribute is enabled.
21. The device of claim 20, wherein the control unit initiates the failsafe attribute to execute a first rollback command to undo changes made in replacing the locked candidate configuration data with the archived configuration data prior to committing the candidate configuration data.
22. The device of claim 17, wherein the control unit loads the archived configuration data in response to receiving a load command.
23. The device of claim 22,  
wherein the load command comprises an override attribute; and  
wherein the control unit discards the candidate configuration and replace the discarded candidate configuration data with the archived configuration data when the override attribute is enabled.
24. The device of claim 1, wherein the control unit commits the candidate configuration data by confirming the candidate configuration data prior to permanently committing the candidate configuration.
25. The device of claim 24, wherein the control unit confirms the candidate configuration data in response to receiving a confirm commit command.

26. The device of claim 24, wherein the control unit to confirm the candidate configuration data comprises a control unit to:
- temporarily commit the candidate configuration data to temporarily restore the archived configuration data as the operational configuration data;
  - subsequently enable a timer to determine a period of time to an event; and
  - permanently commit the candidate configuration data to restore the archived configuration data as the operational configuration data in response to an occurrence of the event prior to the timer exceeding a pre-set time limit.
27. The device of claim 26, wherein the event comprises receiving a commit command.
28. The device of claim 17, further comprising the control unit to unlock the candidate configuration data.
29. The device of claim 28, wherein the control unit unlocks the candidate configuration data occurs in response to receiving an unlock command.
30. The device of claim 28, wherein locking candidate configuration data permits only a single client to edit the candidate configuration data and unlocking the candidate configuration data allows one or more clients to simultaneously edit the candidate configuration data.
31. The device of claim 17, wherein committing the candidate configuration comprises the control unit to generate a configuration patch that lists any differences between the candidate configuration data and the operational configuration data, and apply the configuration patch to the operational configuration data to update the operational configuration data in accordance with the differences.

32. The device of claim 31, wherein generating a configuration patch comprises the control unit to create a temporary copy of the candidate configuration data, merge the operational configuration data into the temporary copy to generate a list of updated configuration objects, and generate the configuration patch to list the updated configuration objects.

33. A method comprising:

issuing a lock command to lock candidate configuration data, wherein the candidate configuration data represents a working copy of operational configuration data;

issuing a load command to load archived configuration data to replace the locked candidate configuration data; and

issuing a commit command to commit the candidate configuration data to restore the archived configuration data as the operational configuration data.

34. The method of claim 33, further comprising establishing a session, wherein issuing the lock command, the load command, and the commit command occurs via the session.

35. The method of claim 34, wherein the lock command and load command comprise a failsafe attribute and an override attribute respectively, wherein the failsafe attribute causes a rollback command to execute in response to failure of the session, and the override attribute causes discarding of the candidate configuration data and replacement of the discarded candidate configuration with the archived configuration data.

36. The method of claim 33, wherein issuing a commit command comprises:

issuing a confirm commit command to temporarily commit the candidate configuration data to restore the archived configuration data as the operational configuration data;

performing integrity tests to assess a state of one or more devices; and

selectively issuing the commit command based on the assessed state of the one or more devices.

37. The method of claim 36, further comprising presenting one or more user interfaces having one or more inputs, wherein issuing the lock command, the load command, the commit confirm command, and the commit command occur in response to receiving states of the inputs.

38. The method of claim 37, wherein inputs comprise selectors, action inputs, radio buttons, pull down menus, field inputs, and check boxes.

39. The method of claim 33, further comprising accessing a memory to retrieve the archived configuration data.

40. An archive system comprising:  
a memory to store archived configuration data; and  
a computing device to issue a lock command to lock candidate configuration data, wherein the candidate configuration data represents a working copy of operational configuration data, issue a load command to load archived configuration data to replace the locked candidate configuration data, and issue a commit command to commit the candidate configuration data to restore the archived configuration data as the operational configuration data.

41. The archive system of claim 40, wherein the computing device further establishes a session, wherein issuing the lock command, the load command, and the commit command occurs via the session.

42. The archive system of claim 41, wherein the lock command and load command comprise a failsafe attribute and an override attribute respectively, wherein the failsafe attribute causes a rollback command to execute, and the override attribute causes discarding of the candidate configuration data and replacement of the discarded candidate configuration with the archived configuration data.

43. The archive system of claim 40, wherein the control unit to issue a commit command comprises a control unit to issue a confirm commit command to temporarily commit the candidate configuration data to restore the archived configuration data as the operational configuration data, perform integrity tests to assess a state of one or more devices, and selectively issue the commit command based on the assessed state of the one or more devices.

44. The archive system of claim 43, wherein the control unit further presents one or more user interfaces having one or more inputs, wherein issuing the lock command, the load command, the commit confirm command, and the commit command occur in response to receiving states of the inputs.

45. The archive system of claim 44, wherein inputs comprise selectors, action inputs, radio buttons, pull down menus, field inputs, and check boxes.

46. A computer-readable medium comprising instructions to cause a processor to:  
lock candidate configuration data, wherein the candidate configuration data represents a working copy of operational configuration data;  
load archived configuration data to replace the locked candidate configuration data;  
and  
commit the candidate configuration data to restore the archived configuration data as the operational configuration data.

47. The computer-readable medium of claim 46, wherein instructions to cause a processor to lock candidate configuration data include instructions to cause a processor to lock the candidate configuration data in response to receiving a lock command, wherein the lock command comprises a failsafe attribute.



48. The computer-readable medium of claim 47, further comprising instructions to cause the processor to:

maintain a session with a client; and

automatically execute a first rollback command to undo changes made in replacing the locked candidate configuration data with the archived configuration data prior to committing the candidate configuration data in response to failure of the session when the failsafe attribute is enabled.

49. The computer-readable medium of claim 46, further comprising instructions to cause the processor to load the archived configuration data in response to receiving a load command, wherein the load command comprises an override attribute.

50. The computer-readable medium of claim 49, further comprising instructions to cause the processor to initiate the override attribute to discard the candidate configuration and replace the discarded candidate configuration data with the archived configuration data.

51. The computer-readable medium of 46, further comprising instructions to cause the processor to:

temporarily commit the candidate configuration data to temporarily restore the archived configuration data as the operational configuration data;

subsequently enable a timer to determine a period of time to an event; and

permanently commit the candidate configuration data to restore the archived configuration data as the operational configuration data in response to an occurrence of the event prior to the timer exceeding a pre-set time limit.

52. The computer-readable medium of claim 46, further comprising instruction to cause the processor to unlock the candidate configuration data.

53. A computer-readable medium comprising instruction to cause a processor to:
- issue a lock command to lock candidate configuration data, wherein the candidate configuration data represents a working copy of operational configuration data;
  - issue a load command to load archived configuration data to replace the locked candidate configuration data; and
  - issue a commit command to commit the candidate configuration data to restore the archived configuration data as the operational configuration data.
54. The computer-readable medium of claim 53, wherein the lock command and load command comprise a failsafe attribute and an override attribute respectively, wherein the failsafe attribute causes a rollback command to execute in response to failure of a session and the override attribute causes discarding of the candidate configuration data and replace the discarded candidate configuration with the archived configuration data.
55. The computer-readable medium of claim 53, further comprising instructions to cause the processor to:
- issue a confirm commit command to temporarily commit the candidate configuration data to restore the archived configuration data as the operational configuration data;
  - perform integrity tests to assess a state of one or more devices; and
  - selectively issue the commit command based on the assessed state of the one or more devices.